

ABSTRACT

The phases of distortions of a signal outputted from an amplifier are measured. A phase measurement device (1) measures an output of an amplifier (20) when an input signal having input frequency components ω_{10} and ω_{20} is fed to the amplifier (20). The phase measurement device (1) includes multipliers (34a, 34b) for orthogonally transforming the output of the amplifier (20) by means of ω_c , a phase acquisition section (40) for acquiring phases θ_1 and θ_2 of the input frequency components ω_{10} and ω_{20} in the output of the multipliers (34a, 34b), and θ_3 and θ_4 (third distortion), and θ_5 and θ_6 (fifth distortion) of the distortion components, a match time/phase measurement section (50) for measuring a match time point Δt when θ_1 and θ_2 match each other according to the acquisition result of the phase acquisition section (40), and a distortion component phase measurement section (60) for measuring phases θ_3 to θ_6 of the distortion components at the match time point Δt according to the acquisition result of the phase acquisition section (40). The phase acquisition section (40) acquires at least one of θ_1 and θ_2 , and θ_3 and θ_5 (with the frequencies higher than those of θ_1 and θ_2) or θ_4 and θ_6 (with the frequencies lower than those of θ_1 and θ_2).